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(19) **United States**(12) **Patent Application Publication**  
**RAMAN et al.**(10) **Pub. No.: US 2009/0024213 A1**(43) **Pub. Date: Jan. 22, 2009**(54) **METHOD AND APPARATUS FOR EXTERNAL  
STABILIZATION OF THE HEART VALVES  
AND MYOCARDIUM**(75) Inventors: **JaiShankar RAMAN**, Chicago, IL  
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**Alexandria, VA 22314 (US)**(73) Assignee: **Mardil, Inc.**, Morrisville, NC (US)(21) Appl. No.: **12/242,467**(22) Filed: **Sep. 30, 2008****Related U.S. Application Data**(63) Continuation of application No. 11/156,004, filed on  
Jun. 17, 2005, which is a continuation-in-part of appli-  
cation No. 10/796,580, filed on Mar. 8, 2004, now Pat.No. 7,381,182, which is a continuation of application  
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7, 2001.**Publication Classification**(51) **Int. Cl.**  
**A61F 2/24** (2006.01)(52) **U.S. Cl.** ..... **623/2.36**(57) **ABSTRACT**

The present disclosure is directed to an external cardiac basal annuloplasty system (ECBAS or BACE-System: basal annuloplasty of the cardia externally) and methods for treatment of regurgitation of mitral and tricuspid valves. The BACE-System provides the ability to correct leakage of regurgitation of the valves with or without the use of cardiopulmonary bypass, particularly when the condition is related to dilation of the base of the heart. This ECBAS invention can be applied to the base of the heart epicardially, either to prevent further dilation or to actively reduce the size of the base of the heart. Such devices also include an extension thereto for the treatment of localized myocardial defects, scars and damage.

